

SUBJECT REQUIREMENT	LOCATION IN APPLICATION COMMENTS
<p>PART F PROCEDURES TO PREVENT HAZARDS</p> <p>F-1 <u>Security</u> 401 KAR 34:020 Section 5</p> <p>Unless a waiver is sought, the Part B permit application must include a description of the security procedures and equipment required by 401 KAR 34:020 Section 5. Applicants seeking a waiver must demonstrate compliance with 401 KAR 34:020 Section 5(1)(a) and (b) by addressing the requirements under F-1a. All other applicants may begin at F-1b</p> <p>F-1a <u>Waiver</u> 401 KAR 34:020 Section 5(1)(a) and (b)</p> <p>If a waiver is requested, the owner/operator must demonstrate the following:</p> <p>F-1a(1) <u>Injury to Intruder</u> 401 KAR 34:020 Section 5(1)(a)</p> <p>Demonstrate how physical contact with the waste, structure, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or live-stock that may enter the active portion of a facility; <u>AND</u></p> <p>F-1a(2) <u>Violation of Chapter 34 Requirements Caused by Intruder</u> 401 KAR 34:020 Section 5(1)(b)</p> <p>Demonstrate how the disturbance of waste or equipment by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility will not cause violation of the requirements of 401 KAR Chapter 34.</p> <p>F-1b <u>Security Procedures and Equipment</u> 401 KAR 34:020 Section 5(2)</p> <p>Applicants must address the requirements of EITHER F-1b(1) OR F-1(b)(2).</p> <p>F-1b(1) <u>24-Hour Surveillance System</u> 401 KAR 34:020 Section 5(2)(a)</p> <p>Describe the 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) that continuously monitors and controls entry onto the active portion of the facility. Describe in detail the:</p> <ul style="list-style-type: none"> • Procedures, equipment, and personnel to be used • Location and description of equipment <p>F-1b(2) <u>Barrier and Means to Control Entry</u> 401 KAR 34:020 Section 5(2)(b)</p> <p>In lieu of the 24-hour surveillance system under F-1b(1), the applicant must address the requirements of F-1b(2)(a) <u>and</u> (b)</p>	

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<p>F-1b(2)(a) <u>Barrier</u> 401 KAR 34:020 Section 5(2)(b)1</p> <p>Describe the artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff) that completely surrounds the active portion of the facility. Include the:</p> <ul style="list-style-type: none"> • Height • Material of Construction <p>F-1b(2)(b) <u>Means to Control Entry</u> 401 KAR 34:020 Section 5(2)(b)2</p> <p>Discuss the proposed/existing means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility). Describe in detail the:</p> <ul style="list-style-type: none"> • Procedure and personnel to be used • Location and description of equipment <p>F-1c <u>Warning Signs</u> 401 KAR 34:020 Section 5(3)</p> <p>Unless the applicant has made a successful demonstration under F-1a, state/demonstrate that the facility has/will have a sign with the legend, “Danger-Unauthorized Personnel Keep Out” that is:</p> <ul style="list-style-type: none"> • present at each entrance to the active portion of the facility • in sufficient numbers to be seen from any approach to the active portion of the facility. • in English and any other language predominant in the area. • legible from a distance of at least 25 feet. <p>Existing signs with a legend other than “Danger Unauthorized Personnel Keep Out” may be used if the legend on the sign indicated that only authorized personnel are allowed to enter the active portion and that entry onto the active portion can be dangerous.</p>	
<p>F-2 <u>Inspection Schedule</u> 401 KAR 34:020, Section 6</p> <p>A copy of the general inspection schedule required by 34:020 Section 6(2) including, where applicable, specific requirements of 34:180 Section 5, 34:190 Sections 4 & 6, 34:200 Section 4, 34:210 Section 5, 34:220 Section 6, 34:230 Section 4, 34:240 Section 7, 34:250 Section 3, 34:275 Section 4, 34:280 Sections 3, 4, & 9, and 34:281 Sections 8 and 11(2).</p> <p>F-2a <u>General Inspection Requirements</u> 401 KAR 34:020 Section 6(1) & (2) and 401 KAR 38:090 Section 2(5)</p> <p>Provide a description of the facility inspection schedule (to be maintained at the facility) for the following equipment:</p> <ul style="list-style-type: none"> • Monitoring equipment • Emergency and safety equipment (Respirators, alarms, fire protection, etc.) • Security devices (Surveillance system, barriers, locking 	

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<p>devices)</p> <ul style="list-style-type: none"> • Operating and structural equipment that are vital to prevent, detect, or respond to environmental or human health hazards (Spill detection equipment, dikes, berms, etc.) • Testing, as necessary, of communications or alarm systems, fire protection equipment and decontamination equipment. <p>Examples of monitoring equipment that should be inspected at treatment, storage, and disposal facilities are:</p> <ul style="list-style-type: none"> • Scales • Flow and liquid level monitors • Hazardous gas detectors • pH monitors • Leachate monitors • Pressure sensors • Temperature gauges <p>Examples of monitoring equipment that should be inspected at facilities with incinerators are:</p> <ul style="list-style-type: none"> • Waste flow monitors and recorders • Auxiliary fuel flow monitors • Combustion air flow monitors • Temperature monitors • Flame sensors • CO monitors and recorders • Pressure differential indicators • Pressure sensors • pH monitors • Ammeters for measuring blower current draw <p>Examples of safety and emergency equipment to be inspected at TSD facilities are:</p> <ul style="list-style-type: none"> • Respirators • Communication systems • Alarm systems • Emergency lighting and power systems • Smoke detectors • Fire protection equipment • First aid equipment and supplies • Decontamination equipment • Protective clothing <p>Examples of security devices to be inspected at TSD facilities are:</p> <ul style="list-style-type: none"> • Surveillance systems • Barrier surrounding facility • Locking devices <p>Examples of operating and structural equipment at TSD facilities are:</p> <ul style="list-style-type: none"> • Spill detection devices • Spill control and collection equipment • Fire and explosion barriers 	

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<ul style="list-style-type: none"> • Ventilation equipment • Sump pumps • Dikes, bases, and foundations <p>In addition, areas such as waste storage, mixing, loading, and unloading areas, which are subject to spills, must be inspected.</p> <p>F-2a(1) <u>Types of Problems</u> 401 KAR 34:020 Section 6(2)(c)</p> <p>The schedule must identify the types of problems to look for during the inspection (e.g., leaks, deterioration, readings out of specified range, missing items or materials, inoperative equipment, etc.).</p> <p>F-2a(2) <u>Frequency of Inspection</u> 401 KAR 34:020 Section 6(2)(d)</p> <p>A description of the inspection frequency must be provided for items on the schedule. The frequency of inspection should be based on the rate of possible deterioration of equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspection areas subject to spills, such as loading and unloading areas, must be inspected daily when in use.</p> <p>For incinerators only, all emergency waste feed cut-off valves must be inspected at least weekly to verify proper operation. All system alarms must also be tested weekly (incinerators only).</p> <p>F-2b <u>Specific Process Inspection Requirements</u> 401 KAR 34:020 Section 6(1)(d)</p> <p>At a minimum, the inspection schedule must include the terms and frequencies called for in 34:180 Section 5, 34:190 Sections 4 & 6, 34:200 Section 4, 34:210 Section 5, 34:220 Section 6, 34:230 Section 4, 34:240 Section 7, 34:250 Section 3, 34:275 Section 4, 34:280 Sections 3, 4, & 9, and 34:281 Sections 8 and 11(2), where applicable.</p> <p>F-2b(1) <u>Container Inspection</u> 401 KAR 34:180 Section 5</p> <p>Provide a description of the <u>weekly</u> inspection of containers and container storage areas for leaks in containers or deterioration of containers and the containment system caused by corrosion or other factors.</p> <p>F-2b(2) <u>Tank System Inspection</u> 401 KAR 34:190 Section 6</p> <p>Provide:</p> <ul style="list-style-type: none"> • A description of the inspection each operating day of overfilling control equipment, monitoring equipment, and levels of waste in uncovered tanks. • A description of the <u>daily</u> inspection of tank construction materials and the area surrounding the tank including secondary containment system (e.g. dikes). 	

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<ul style="list-style-type: none"> • A schedule describing the monitoring of each operating day of monitoring equipment (e.g., pressure and temperature gauges) where present to ensure that the tank is operated according to design specifications. • A schedule showing the level of waste in uncovered tanks is inspected each operating day. • A schedule and procedure for assessing the condition of the tank, including detection of leaks, cracks, or wall thinning to less than minimum shell thickness. • the procedure for emptying a tank to allow entry and inspection when necessary to detect corrosion or erosion of the tank sides and bottom. • the procedure to confirm proper operation of cathodic protection system (if present) within six months after installation and at least annually thereafter. • a schedule showing all sources of impressed current are inspected and/or tested at least bimonthly. <p>F-2b(3) <u>Waste Piles Inspection</u> 401 KAR 34:210 Section 5</p> <p>The application must provide a description of the procedures to:</p> <ul style="list-style-type: none"> • Inspect liners/covers during construction and immediately after installation for: Uniformity, damage and imperfections, holes, cracks, thin spots, bulges, root holes, tight seams and joints permeability and compaction. • Remove the waste pile and periodically inspect liners for deterioration, cracks and other imperfections. • Perform weekly inspections and after storms to detect: <ul style="list-style-type: none"> • Deterioration, malfunctions, or improper operation of run-on and run-off control systems. • The presence of liquids in leak detection systems, where installed. • Proper functioning of wind dispersal control systems, where present . • The presence of leachate in and proper functioning of leachate collection and removal systems, where present . <p>F-2b(4) <u>Surface Impoundment Inspection</u> 401 KAR 34:200 Section 4</p> <p>The application must provide a description of how each surface impoundment, including liner and cover system and appurtenances for control of overtopping, will be inspected <u>weekly</u> and <u>after storms</u> to detect evidence of any of the following:</p> <ul style="list-style-type: none"> • Deterioration, malfunctions or improper operation of overtopping control systems. 	

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<ul style="list-style-type: none"> • Sudden drops in the level of the impoundment's content. • Presence of liquids in leachate collection systems, where installed. • Severe erosion or other signs of deterioration in dikes or other containment devices. <p>For new facilities, include a description of how liners will be inspected during construction and immediately after installation to detect non-uniformity, damages, and imperfections (holes, cracks, thin spots, bulges, root holes, tight seams and joints, permeability, and compaction).</p> <p>F-2b(5) <u>Incinerator Inspection</u> 401 KAR 34:240 Section 7</p> <p>Incinerator and associated equipment must be inspected visually at least <u>daily</u> for leaks, spills, fugitive emissions and signs of tampering.</p> <p>Emergency waste feed cut-off system and associated alarms must be tested at least <u>weekly</u> unless the applicant demonstrates that weekly frequency is unduly restrictive and that less frequent inspection will be adequate. At a minimum, operational testing must be conducted <u>monthly</u>.</p> <p>F-2b(6) <u>Landfill Inspection</u> 401 KAR 34:230 Section 4</p> <p>Landfill owner or operators must provide description of procedures for:</p> <ul style="list-style-type: none"> • New facilities: Inspection of liner/cover systems during and immediately after installation. • All facilities: Inspections <u>weekly</u> and <u>after storms</u> for: <ul style="list-style-type: none"> • Operation of run-on/run-off controls • Liquids in leak detection system • Proper functioning of wind dispersal controls • Leachate in and proper operation of leachate collection/removal system. <p>F-2b(7) <u>Land Treatment Inspections</u> 401 KAR 34:220 Section 6</p> <p>Provide a description of the inspection procedures. Specifically, the unit must be inspected <u>weekly</u> and <u>after storms</u> for:</p> <ul style="list-style-type: none"> • Deterioration, malfunction or improper operation of run-on and run-off control systems. • Improper functioning of wind dispersal control measures. <p>F-2c <u>Remedial Action</u> 401 KAR 34:020 Section 6(3)</p> <p>A description of procedures for taking remedial actions when inspections reveal problems or when problems are imminent. (These may alternately be described in the contingency plan)</p> <p>F-2d <u>Inspection Log</u> 401 KAR 34:020 Section 6(4)</p> <p>A copy of the inspection log or summary form including the following:</p>	

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<ul style="list-style-type: none"> • Dates and times of inspections • Name(s) of inspector(s) • Observations made • Date and nature of repairs or remedial actions taken <p>F-3 <u>Waiver of Preparedness and Prevention Requirements</u> 401 KAR 38:090 Section 2(6)</p> <p>A justification of any request for a waiver of preparedness and prevention requirements of Chapter 34.</p> <p>F-3a <u>Equipment Requirements</u> 401 KAR 34:030 Section 3</p> <p>Unless it can be demonstrated that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below, the facility must have the following equipment: (These requirements are not specifically listed in 38:090-34:210 for inclusion in a Part B).</p> <p>F-3a(1) <u>Internal Communications</u></p> <p>An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel.</p> <p>F-3a(2) <u>External Communications</u></p> <p>A device such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, for summoning emergency assistance from local police departments, or state or local emergency response teams.</p> <p>F-3a(3) <u>Emergency Equipment</u></p> <ul style="list-style-type: none"> • Fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals, and portable fire extinguishers) • Spill control equipment. • Decontamination equipment. <p>F-3a(4) <u>Water for Fire Control</u></p> <p>Provide one of the following:</p> <ul style="list-style-type: none"> • Water at adequate volume and pressure to supply water hose streams. • Foam-producing equipment. • Automatic sprinklers or water spray systems. <p>F-3b <u>Aisle Space Requirements</u> 401 KAR 34:030 Section 6</p> <p>Requests for a waiver of the aisle space requirement must be accompanied by a demonstration that aisle space is not needed to allow the unobstructed movement of personnel, fire protection equipment, or spill control equipment to any area of an emergency.</p>	

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<p>F-4 <u>Preventive Procedures, Structures, and Equipment</u> 401 KAR 38:090 Section 2(8)</p> <p>A description of procedures, structures, or equipment used at the facility for the following must be included:</p> <p>F-4a <u>Unloading Operations</u> Prevention of hazards in unloading operations (e.g., use of ramps or special forklifts).</p> <p>F-4b <u>Runoff</u> Prevention of run-off from hazardous waste handling areas to other areas of facility or environment, or prevention of flooding (e.g., berms, dikes, trenches).</p> <p>F-4c <u>Water Supplies</u> Prevention of contamination of water supplies.</p> <p>F-4d <u>Equipment and Power Failure</u> Mitigation of effects of equipment failure and power outages.</p> <p>F-4e <u>Personnel Protection Equipment</u> Prevention of undue exposure of personnel to hazardous waste (e.g., protective clothing).</p> <p>F-4f <u>Atmosphere</u> Prevention of releases to the atmosphere</p> <p>F-5 <u>Prevention of Reaction of Ignitable, Reactive and Incompatible Wastes</u> 401 KAR 38:090 Section 2(9)</p> <p>F-5a <u>Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Wastes</u></p> <p>A description of the precautions taken by a facility that handles ignitable, reactive, or incompatible waste to demonstrate compliance with 34:020 Section 8 including documentation demonstrating compliance with 34:020 Section 8(3).</p> <p>Precautions to prevent actual ignition, including separation from sources of ignition such as:</p> <ul style="list-style-type: none"> • Open flames • Smoking • Cutting and welding • Hot surfaces • Frictional heat • Sparks (static , electrical, or mechanical) • Spontaneous ignition (heat producing chemical reactions) • Radiant heat <p>Demonstration that when ignitable or reactive waste is being handled, the owner or operator confines smoking and open flames to specially designated locations. “No Smoking” signs must be conspicuously placed wherever a hazard exists from ignitable or reactive waste.</p>	

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<p>F-5b <u>General Precautions for Handling Ignitable or Reactive Waste and Mixing of Incompatible Waste</u></p> <p>A description of the precautions taken by a facility that stores, treats or disposes of ignitable or reactive waste or accidentally mixes incompatible waste or incompatible wastes and other materials, to prevent reactions which:</p> <ul style="list-style-type: none"> • Generate extreme heat or pressure, fire or explosion or violent reactions. • Produces uncontrolled flammable fumes, dust or gases in sufficient quantities to threaten human health or the environment. • Produces uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions. • Damage to structural integrity of the device or facility. • By similar means threaten human health or the environment. <p>Documentation to meet requirements of 34:020 Section 8(1) or 8(2) may be based on references to published scientific or engineering literature, data from trial tests, waste analyses, or results of treatment of similar wastes by similar treatment processes and under similar operating conditions.</p>	
<p>F-5c <u>Management of Ignitable or Reactive Wastes in Containers</u> 401 KAR 34:180 Section 7</p> <p>Sketches, drawings, or data demonstrating that containers of ignitable or reactive wastes are located at least 15 meters (50 feet) from the facility's property line.</p>	
<p>F-5d <u>Management of Incompatible Waste in Containers</u></p> <p>A description of procedures to demonstrate compliance with 34:180 Section 8(1) and 8(2); and 34:020 Section 8(2) and 8(3):</p> <ul style="list-style-type: none"> • The procedures used to ensure that incompatible wastes and materials are not placed in the same container (unless 34:020 Section 8(2) is complied with) or in an unwashed container that previously held incompatible waste. • Dikes, berms, walls, or other devices used to separate wastes in containers, piles, open tanks, or surface impoundments. 	
<p>F-5e <u>Management of Ignitable or Reactive Wastes in Tanks</u> 401 KAR 34:190 Section 9</p>	

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<p>A description of the procedures for handling incompatible, ignitable, or reactive wastes, including the use of buffer zones. Chapter 34 requirements include:</p> <ul style="list-style-type: none"> Waste must be treated, rendered, or mixed before or immediately after placement in the tank so that it is no longer considered ignitable and complies with 34:020 Section 8(2) or the waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to react or ignite; or the tank is used solely for emergencies. Facilities that treat or store ignitable or reactive waste in covered tanks must comply with the National Fire Protection Association's buffer zone requirements for tanks. <p>F-5f <u>Incompatible Wastes in Tank</u> 401 KAR 34:190 Section 10</p> <p>A statement that incompatible wastes and materials are not stored in the same tank or in an unwashed tank that previously held an incompatible waste or material (unless 34:020 Section 8(2) is complied with).</p> <p>F-5g <u>Ignitable/Reactive Waste for Waste Piles</u> 401 KAR 34:201 Section 6</p> <p>The application must include a description of the procedures for handling ignitable or reactive wastes, including the use of buffer zones. Waste must be treated, rendered, or mixed before or immediately after placement in the waste pile so that it is no longer considered ignitable and complies with 34:020 Section 8(2); or the waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to react or ignite.</p> <p>F-5h <u>Incompatible Wastes in Waste Piles</u> 401 KAR 34:210 Section 7</p> <p>The application must include:</p> <ul style="list-style-type: none"> A statement that incompatible waste and materials are not stored in the same waste pile or on the same base that previously held incompatible waste or material unless 34:020 Section 8(2) is complied with. A description of the procedures (dikes, berms, walls, distances) utilized to separate a waste pile of hazardous waste that is incompatible with any waste or other material stored nearby. <p>F-5i <u>Ignitable or Reactive Wastes in Surface Impoundments</u> 401 KAR 34:200 Section 7</p>	

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<p>A description of the procedures for handling ignitable or reactive waste, including the use of buffer zones. Ignitable or reactive waste shall not be placed in a surface impoundment, unless the waste and the impoundment satisfy:</p> <ul style="list-style-type: none"> • All applicable requirements of 401 KAR Chapter 37 and • Waste must be treated, rendered or mixed before or immediately after placement in the surface impoundment so that it is no longer considered ignitable and complies with 401 KAR 34:020 Section 8(2); or • The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to react or ignite. • The impoundment is used only for emergencies. <p>F-5j <u>Incompatible Wastes in Surface Impoundments</u> 401 KAR 34:200 Section 8</p> <p>The application must include:</p> <p>A statement that incompatible wastes and materials are not/will not be stored in the same surface impoundment that previously held an incompatible waste or material unless 34:020 Section 8(2) is complied with.</p> <p>F-5k <u>Ignitable or Reactive Waste in Landfills</u> 401 KAR 34:230 Section 7</p> <p>Documentation of procedures for:</p> <ul style="list-style-type: none"> • Showing that the waste and the landfill meet all applicable requirements of 401 KAR Chapter 37 and that Section 8 of 401 KAR 34:020 is complied with • Rendering wastes non-reactive or ignitable prior to or immediately after placement in the landfill. • Preventing reactions. • Protecting ignitable wastes in containers from materials or conditions that may cause them to ignite. <p>F-5l <u>Incompatible Wastes in Landfills</u> 401 KAR 34:230 Section 8</p> <p>Applicant must provide procedures for insuring that incompatible wastes will not be disposed of in the same landfill cell.</p> <p>F-5m <u>Liquid Wastes in Landfills</u> 401 KAR 34:230 Section 9</p> <p>Demonstrate compliance with 401 KAR 34:230 Section 9(1) through (5)</p> <p>F-5n <u>Special Requirements for Containers Disposed in Landfills</u> 401 KAR 34:230 Section 10</p>	

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<p>Provide the following:</p> <ul style="list-style-type: none"> • Documentation of procedures for ensuring that containers (except very small ones) are at least 90 percent full when placed in the landfill. • Documentation of procedures for crushing, shredding, or reducing volume of empty containers prior to landfilling • Description of procedures, containers, and materials used to ensure that lab packs comply with all requirements of 34:230 Section 11. <p>F-5o <u>Ignitable or Reactive Wastes in Land Treatment Units</u> 401 KAR 34:220 Section 9</p> <p>A description of the management of ignitable or reactive wastes which will be placed in or on the treatment zone, if applicable, and an explanation of how the following requirements will be complied with:</p> <ul style="list-style-type: none"> • The waste is immediately incorporated into the soil so that the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste and the requirements of 34:020 Section 8(2) are complied with, or • The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react. <p>F-5p <u>Incompatible Waste in Land Treatment Units</u> 401 KAR 34:220 Section 10</p> <p>A description of the management of incompatible wastes must be submitted if compatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment zone including an explanation of how the following requirements of 34:020 Section 8(2) will be complied with.</p>	